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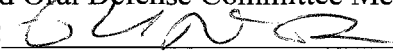
MASTER OF MILITARY STUDIES


*Necessity and Change: Contributing Factors and the Development of Soviet
Operational Art*

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MILITARY STUDIES

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Executive Summary

Title: Necessity and Change: Contributing Factors and the Development of Soviet Operational Art

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Thesis: Past war performance (in the Russo-Japanese War, World War I, and the Russian Civil War) combined with significant alterations to the political, social, and cultural structures of the nation and the growing technological advances of the early twentieth century contributed to development of a formalized methodology to visualize, plan, and execute large scale operations in a method that supported the Russian/Soviet state and way of war.

Discussion: Russia and the Soviet Union possessed a rich heritage of skilled military theorists. In a unique country and amidst significant political and social changes, these thinkers continued to advance military thinking to succeed in future wars. The first two decades of the 20th century saw significant military operations for both imperial and Soviet Russia. Reviews of efforts in the Russo-Japanese War led theorists to strive for a better understanding of modern warfare. Soon after, involvement in World War I witnessed limited changes in operational planning. Then the Russian Civil War demonstrated necessary changes in military operations due to the character of the war and the means possessed to fight it. Thorough studies of these conflicts during the interwar years contributed to operational development. Significant social, cultural, and political changes occurred during and after these conflicts. These changes combined with technological changes and a broader understanding of how to maintain internal and external security across expansive territory. Rather than focusing solely on the contributors to Soviet operational art, this paper seeks to link the supporting cultural, social, political, and military institutions and conditions that supported this development.

Conclusion: The creation and maturation of the Soviet Union and resulting modernization efforts of society and the military continued the evolution of new ways to view warfare and frame the problem of command and control and operational planning in support of massive forces over expansive distances. The result was a new concept that ultimately enabled the Soviet Union to adequately control massed forces, fires, and maneuver them in linked operations to defeat the Germans in World War II.

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Preface

The Red Army performed countless significant and critical roles in the service of the Soviet Union. This institution effectively unified the nation and assisted in imparting the drastic social and political changes in the maturation of itself and the state. These actions served as a way of homogenizing the Soviet Union through military service. During the interwar period, the Red Army harnessed lessons learned and technological change and built upon a rich history of theory while concurrently affected by social, cultural, and political changes. These factors all impacted the creation of the Red Army and the concurrent development of Soviet operational art in the 1920s and 1930s.

World War II witnessed the initial two years of setbacks for the Red Army. Despite these setbacks, the supreme command maintained the goal of resuming large scale, successive operations. When these occurred, beginning with Operation URANUS in late 1942, the work of military theorists in the interwar years began to yield the success that the Soviets and allies desperately needed to defeat Germany. When studying the operations conducted on the East Front, it is easy to be impressed with the large scale of battles at Stalingrad and Kursk among others. What strikes me as particularly fascinating is how the Red Army was able to repeatedly absorb significant losses and set the conditions to gain and maintain the initiative that led them back across the western portion of the USSR and into Berlin in 1945.

As much as the individual contributions of theorists such as Svechin, Tukachevskii, Triandifilov, and Neznamov shaped the development of Soviet operational art, the belying changes to the social, cultural, and political institutions provided a supporting structure for conceptualization and development to occur. The same structure also collapsed in the late 1930s and resulted in the unfortunate murders of many theorists. Their legacy, passed on to peers and subordinates was revived and used to great success in late 1942 and through the end of World War II.

As much as the revolutions and resulting social, cultural, and political changes were decades in foment, the development of operational art traces its lineage backward to the Crimean War. It built momentum from lessons learned and the assimilation of new technologies as the Russians and later Soviet military thinkers formalized a methodology to plan and execute large scale operations to safeguard their nation.

This paper seeks to answer the following question: Looked at from social, military, cultural, and political perspectives: What were the primary drivers that transformed the Soviet military's capability to conduct large-scale, coordinated mechanized operations in the two decades before World War II?

Introduction

Today the development of operational art by the Soviet theorists is widely acknowledged and studied. The imperial Russian Empire and the later Soviet Union enjoyed a robust heritage in military operational thought and planning throughout history. Throughout the late nineteenth and early twentieth centuries, significant changes occurred and evolved within this school of thought. Past conflicts fueled determination to affect changes within the military structure and how it fought. Social and cultural changes resulted from the conflicts of this timeframe as well. The revolutions intertwined with the conclusion of the Russo-Japanese War, and involvement in World War I significantly altered the cultural and social aspects and institutions of the nation. The aftermath of the Russian Civil War demonstrated a need to assert and maintain authority across the expansive Soviet Union and to protect its territory from outside influence. These critical events, across the political, social, and military spectrums, directly contributed to the development of Soviet operational art in the 1920s and 1930s.

The technological advances in the twentieth century and the role of science in Czarist, Soviet Russia, and Soviet Union also contributed to the operational art development as new methods, reasoning, and organization affected military planning and employment.¹ With the ongoing technology and social modernization, there was now a need to effectively coordinate and control these forces across vast distances to maintain the security of the Soviet Union against internal and external threats. The combination of political changes and ideological differences between Soviet Russia and Western Europe shed light on the rising capabilities and intentions of potential adversaries that further contributed to operational development.

A unique situation of broad, complex social and cultural changes, lessons learned resulting from past conflicts, technological advances, and the response and application by a

socially transformed and modernized military under constrained time availability is a useful topic of study with elements applicable to members of the profession of arms now and in the future. This paper will explore the supporting social, cultural, political, and military conditions and institutions that led to and supported the rapid development of operational planning and execution that ultimately safeguarded the Soviet Union from its creation through the interwar years and into World War II.

This Master of Military Studies Paper will set forth the argument that the development of Soviet operational art during the interwar years is derivative of multiple factors in the late Russian Empire and early Soviet history. Decades of past war performance in the Russo-Japanese War, World War I, and the Russian Civil War, combined with significant alterations to the political, social, and cultural structures of the nation and the growing technological advances in the early twentieth century contributed to development of a formalized methodology to visualize, plan, and execute large scale operations in a method that supported the Russian/Soviet state and way of war.

Background

The 1905 and 1917 revolutions, both decades in the making from social and political changes, coincided with Russia's wars of the early 20th century. The Russo-Japanese War concluded and Imperial Russia withstood the 1905 Revolution. This later brought sweeping political changes and a limited voice to the people. For Russia World War I brought the collapse of the Russian Army and Bolshevik Revolution and ultimately concluded with the Treaty of Brest-Litovsk and dissolution of the monarchy. The Red Army was born and fought the Civil War across broad terrain against an enemy backed by the West. This conflict yielded many

lessons learned regarding mobility, a continued intention to avoid static warfare, and realization of the need to modernize the nation.

Both prior to and following the dissolution of the Union of Soviet Socialist Republics in 1991, a great deal of works emerged and continue to do so regarding the details surrounding the development of Soviet operational art. The military theorists of the 1920s and 1930s, many of whom perished under Stalin's purges prior to World War II, provided the crucial conceptualization of how the Soviet Union would plan, fight, and win future battles. The refined concepts that reemerged with Operation URANUS in 1942 continued to improve and build momentum and proficiency till the end of the war through successively linked large-scale operations involving mass formations of men and equipment across broad frontiers. Following World War II, these concepts evolved again with the advent of nuclear weapons, new political alliances, technological improvements, and territories.

Military thinkers such as Svechin, Tukachevskii, Neznamov, and Triandifilov debated the various methods to conduct modern warfare. Many of these men joined the Red Army and capitalized on past experience in the recent conflicts, the Russo-Japanese War and World War I. Determined to gain an understanding of modern warfare and possibly to solidify their positions within the new political regime, these men constructed the intellectual framework to protect the Soviet Union in future wars. Concepts such as shock, large scale turning attacks, destruction, attrition, simultaneity, and interchangeability ultimately formed the concepts for large-scale fronts fighting across broad distances in a series of linked operations. Among this debate are the lessons learned from previous wars, emergent technologies, all set against the backdrop of rapid modernization and political, social, and cultural changes. The revolution in military affairs regarding military thought set the course for the Red Army throughout the twentieth century.

The complex history of Russia and the Soviet Union in the 20th century can be attributed to an endless list of contributing factors. These factors include significant changes to social, cultural, and military institutions' structure and climate resulting from revolutions, technology, and past military performance. This paper will explore these factors as primary drivers that transformed the Soviet military's concepts of how to conduct large-scale, coordinated operations in the two decades before World War II.

What is 'operational art'?

Depending on the author, the term 'operational art' can encompass the broad linkages between strategy and tactics or focus on specific types of large scale operations and their conduct. This paper will use the 1986 FM 100-5 and current JP-5 definitions of operational art to provide definitions and an orientation for 'what' it is for members of the profession of arms today.² The 1986 FM 100-5 reflects the initial definition of operational art and deeper understanding of the concept as the US developed and applied it to doctrine whereas JP-5 reflects the most recent doctrinal definition.³ The takeaways from these two definitions are that future definitions will likely evolve with emergent technologies, command and control platforms, and scale.

The 1986 FM 100-5 defined operational art as follows:

Operational art is the employment of military forces to attain strategic goals in a theater of war or theater of operations. Operational art thus involves fundamental decisions about when and where to fight and whether to accept or decline battle. Its essence is the identification of the enemy's operational center of gravity-his source of strength or balance- and the concentration of superior combat power against that point to achieve a decisive success. Operational art requires broad vision, the ability to anticipate, a careful understanding of the relationship of means to ends, and effective joint and combined cooperation. Reduced to its essentials, operational art requires the commander to answer three questions: 1) What military condition must be produced in the theater of war or operations to achieve the strategic goal? 2) What sequence of actions is most likely to produce that condition? 3) How should the resources of the force be applied to accomplish that sequence of actions?

JP-5 defines operational art as follows:

The creative thinking used to design strategies, campaigns, and major operations and to organize and employ military force, allows commanders to better understand the challenges facing them and to conceptualize an approach for achieving their strategic objectives. The thought process helps commanders and their staffs to lessen the ambiguity and uncertainty of a complex operational environment, understand the military problem facing them, and visualize how best to effectively employ military capabilities to accomplish their mission. This is the essence of operational art.⁴

The earliest and latest definitions in United States official publications reflect continued debate and refinement of what exactly comprises operational art and how it is interpreted and implemented. In the two and a half decades separating these definitions, the US military continues to examine and refine ‘what’ operational art is. The Soviet theorists developed and refined their own operational art as they grew the Red Army, modernized the force, and prepared to defend the party and borders. How their version of operational art developed resulted from significant changes in culture, society, education, and the military.

How Soviet Operational Art Developed

The timeline for the end of the Czarist regime and establishment of the Soviet Regime saw significant social changes before, during, and after revolutions. Continued modernization, industrialization, and war efforts enabled one another and resulted in social and cultural changes that developed into the Russian revolutions in the early 20th century. These alterations began with the emancipation of the serfs in 1861, continued through social and political strife, and ultimately resulted in the end of Czarist rule in 1917. The new system under Lenin and then Stalin took years to evolve and endured further internecine disputes but ultimately prevailed and solidified power. The new regime rallied ideological support via education, military, science, and

economic means. In turn, the regime used these venues to support and rationalize decisions made by the Soviet government.

Both Imperial Russia and the early Soviet Union suffered from a weak sense of national identity.⁵ Pre-1930s 'Russian' typically referred to an opposition to other ethnic groups or nations and most often used for xenophobic purposes to galvanize the population against a threat.⁶ Whether it was due to grand borders, class system, limited communication means, and others in the potentially unlimited list of causal factors, both the Czarist and Soviet Regimes encountered difficulties in mobilizing and uniting the entire nation. Both the Russian and Soviet citizens essentially lacked a common heritage and tales of glorious history.⁷ The typical Russian and Soviet thought in local or provincial terms and identified himself not by 'Russian', but by province or ethnic group.

A strong, overarching Soviet identity was not prevalent until solidification of the USSR under Stalin and the efforts to defend it during World War II. However, a community approach existed for centuries before the rise of the Soviet system.⁸ Due to past and emerging economic and social systems, collective work and efforts took priority over individual goals.⁹ To survive and succeed in agriculture and industry required groups to work together in contemporary times as well as plan for future events. The communal approach to work, planning, and attempting to understand the issues at hand were rooted in critical aspects of daily life. Building upon the premise of communal work, the new regime promulgated the idea of the 'new Soviet man'.¹⁰ The new Soviet man was an individual who loved his group, his fellow workers, his work (no matter the type), and contributions to the team.¹¹

According to cultural psychologists, and as a generalization, Russians elevated the value of understanding a problem in importance over the action.¹² With the rapid modernization and

social changes, this line of reasoning remained; and perhaps with new freedoms, increased. The importance of analysis and understanding problems was an important aspect of Marxist theory; this in turn was present in the social fabric and in the military institutions. This generalized outlook provided the intellectual framework and impacted the development of operational planning and execution for both Imperial and the Soviet Union.

The communist regime sought to solidify and maintain power while modernizing the nation. Some scholars argue that Lenin and Trotsky created a fortress state due to fears of external and internal enemies.¹³ Furthermore, this time period witnessed the continued reliance on enemies to unify and forge the Soviet identity. Initially the Poles, White Army, and then internal threats in the 1930s purges aided the Soviet political structure to solidify power and further establish the Soviet identity. Marxist-Leninist dogma supported and stressed the need for social and human development rather than solely technological development.¹⁴ There appear to be two distinct periods regarding modernization: the time period under Lenin and the time period under Stalin. Stalin set in motion the enduring social conditions for the duration of the USSR's history through focusing all efforts to mobilize and modernize the nation in an attempt to remake society.¹⁵ Done through perpetual crisis, terror, or through ideological justification, or a combination thereof, these social, political, military, and economic changes took precedence and technology was used to support these changes.

The Communist Party quickly realized that it could, like the imperial regime, use science to modernize the nation.¹⁶ This must be looked at in the two prominent perspectives of science as a methodology, but also as a support to established ideology. This second way indeed promoted the advancement of science in the first decades of the twentieth century, but also the legitimization and promotion of Marxist-Leninist ideology.¹⁷ This method supported the drastic

social, political, economic, and later military changes and kept these changes nested within the developing Soviet ideology. The Soviet bond between science and ideology was a continuing effort throughout its history.¹⁸

This ideology served two primary functions: to guide long-term planning and to justify the actions of the government and its leaders.¹⁹ From 1918 onward, the Communist Party expanded The Academy of Sciences through various new research centers.²⁰ The Soviets used ideology to establish technical solutions to existing issues and to assert order and clarity to the plan forward. With the developing and encompassing ideology and elevation of technology and bimodal use of science, it is easy to understand how this methodology transferred into the realm of military theory.

The education system continued to evolve under the communist regime. Despite a general focus on analysis and understanding problems, the primary education system maintained a rote style of lecture, repetition, and memorization.²¹ This system capitalized on a large pool of available talent.²² Modernization required technical training, and as such, the educational system evolved to support demand. Those who successfully mastered the basic education were able to focus on broader concepts.²³ The Communists also viewed this as a means to provide political indoctrination for the population.²⁴ The military established new schools for staff officers and provided the supporting structure for an analytical and creative environment. In keeping with the ideological spirit, it combined science as a method of providing technical solutions to existing problems and the framework for the evolving military science to support ideology.

The increasing role of science and technical approach to problems solving across the expansive land mass was a primary driver in the development of Soviet operational thought. The methodology and concepts of large scale, basic operations across multiple objectives evolved

into the concepts that comprise Soviet operational art. The resulting military development of doctrine and plans tied back into the technological weakness at the rise of the Red Army. To prevail, it utilized an extensive planning process that relied on a thorough understanding of the problem to plan for mass and shock across a broad front to overwhelm adversaries.

The Bolsheviks established the Red Army to deal with the coming Civil War and various foreign interventions.²⁵ In materiel assistance and or nationalist groups fighting to secure their own interests, the Civil War hosted a long list of participants. The creation of the Red Army during this time frame encompassed an eclectic mix of both the old and new regimes and reflected the ongoing political and social developments.²⁶ As the Red Army developed and established itself, it maintained fragments of the imperial military and incorporated elements from the new political theory. In terms of the military, Marxism-Leninism maintained that the military is a product of the economic relationship among all classes.²⁷ This relationship changed, and thus the military was expected to change. By incorporating historic and new elements into the new Red Army, the Soviet military established an environment that was open to new changes. This supported the development of military theory and the continuation of Soviet operational thought during the interwar years.

Looking at the development of the Red Army, Trotsky used this as a vehicle to rapidly affect change, both socially and politically for the Soviet Union. This occurred through political indoctrination, a focus on enemies, and glorification of the Red Army's victories, future potential, and power.²⁸ The Soviets wrestled with the question of how to maintain security and protect the new country while modernizing the nation and military. A modern, substantial military is an expensive endeavor. To modernize and change the political, social, economic, and military institutions required a variety of trade-offs.

The Red Army maintained the history of conscription and focused on only the politically reliable classes of the poor and peasant populations.²⁹ Military theorists posed the initial ‘materiel or morale’ question that continued to grow in the development of the Soviet military during the inter-war years and throughout the history of the Soviet military. Initially concerned with affordability and maintaining a large army, the economic fragility of the Soviet regime required the use of territorial militias. The use of militias required them to be politically reliable.³⁰ By capitalizing on past local identities, the Red Army created national units within its ranks and the militia ranks. The development of both the Red Army and militias answered the question of how to maintain security and readiness; however, this setup increased risk to the new regime and limited the effectiveness and modernization of the military as a whole.

As a revolutionary state, the doctrine of the Red Army was centered on offensive operations. This nested within the political ideology but was also a holdover from the Civil War and during the interwar years from studying both East and West Fronts of World War I. By maintaining maneuverability, primarily through cavalry at this point, the Red Army would mitigate its technical shortfalls, and also utilize partisan warfare as a safeguard.³¹ In the early 1920s, Frunze affected a series of alterations that encompassed the Red Army’s warfighting functions. He split the staff into three separate bodies, with the core focused on planning.³² He established inspections and supply directorates and instituted the territorial militia system to gain efficiencies and continue modernization and development. Militia units proved their worth during the Civil War and Frunze continued this tradition. He also implemented a gradual increase along national formations comprised of various ethnic groups.³³

The reconciliation within the communist ideology of the officer corps in a classless system was another significant challenge in the creation of the Red Army. Despite political

ideology, the officer corps remained a division amongst men. Vestiges of the past military system would take generations to eliminate. Frunze's unified military doctrine settled this debate and claimed that due to the destructiveness and demands of current and future conflicts, a military made up of the people, and led by politically reliable officers was required to wage and win these conflicts.³⁴ To reconcile the potential divide between the officers and conscripted, Frunze advocated for minimal privilege of rank. To support the political system and protect the military institutions, he argued that the scientific nature of Marxism altered military science.³⁵ This provided a through linking of military institutions as subordinate and nested within the political regime as well as the focus to deconstruct problems through an ordered understanding of the problem and how best to solve it. The environment for scientific reasoning and methodology was transferred into the military science development of the Red Army. The politicization of the military and combined social changes created the institutions and conditions to develop new operational thought.

The main concern in the development of the Red Army leadership was that of political reliability. Integration of the pro-Czarist veteran talent into the military was a difficult challenge to overcome. During the Civil War, the Bolsheviks lacked significant numbers of men who possessed military command or staff experience.³⁶ Despite this shortfall, there was significant opposition to incorporating former Czarist officers into the Red Army in its creation and after the Civil War. Tukachevskii, then a junior officer, claimed that the Red Army essentially received the least capable talent from the Czar's army that failed to possess the basic military skills and political understanding of a dynamic civil war.³⁷ Trotsky realized the shortfall and saw the practical need of Imperial Army officers. He was the main proponent in recruiting the former

Czarist officers and though this went into effect, the controversy and divisiveness festered for years.

Trotsky and Lenin employed brutal methods of coercion to employ the officers, many of whom detested the new regime and blamed it for the conclusion of World War I. Both World War I and the Russian Civil War increased many officers' modern warfare experiences that later enhanced the Red Army's establishment and growth.³⁸ Those who served as 'voenspetsy' or military specialists in the Red Army continued to expound on the operational theories that arose from the Russo-Japanese war, World War I, and the Russian Civil War. Many of these men stayed on to provide the professional cadre for the conscript military.³⁹ Both personal and institutional experiences in past conflicts created a unique environment that manifested itself in the development of the Red Army and its doctrine. The actions during the Russian Civil War, more than the previous conflicts, provided the backdrop to conceptualize the new operational art and design and also created the climate to further this discussion. Scale, density, and economic backwardness and the associated difficulties of sustainment and transportation created significant opportunities for maneuver.⁴⁰ In terms of scale it was primarily due to broad terrain and separated objectives.

Dual command by political and military leaders presented its own issues for the Red Army. Ostensibly allowed significant independence, Red Army commanders still needed to plan, execute, and lead operations with the concurrence of the political chain of command within their organizations. The establishment of the political directorate within the military created friction in regards to unity of command and effort. This was a direct result of concerns following the Kronstadt mutiny, where Naval Forces, despite past revolutionary vigor, turned against the

Bolsheviks.⁴¹ Frunze's legacy remains in the return of command authority to officers from political commissars.⁴²

Russian history often demonstrated the use of mass armies perhaps as a result of historic methods of waging war and the existence of limitless manpower. The creation and development of the Red Army continued this history; however, it was different due to changes from social and political contributors. Political reliability was paramount for conscripts and officers. With this given primacy, the challenge to develop and later modernize the Red Army only increased. Though the initial years necessitated the use of soldiers with minimal training, the leadership of the Soviet Union realized the power of trained soldiers in comparison to armed workers.⁴³ The necessity to maintain a professional cadre to train and plan resulted from the Civil War. The system setup by men such as Trotsky and Frunze laid the basic groundwork from which to provide the military power to execute future operations.

Despite an aggressive modernization effort for the military structure and equipment, Imperial Russia demonstrated several decades of lackluster military performance beginning with the Crimean War. It continued and again manifested in the puzzling defeat in the Russo-Japanese War, the experience in World War I, and the Russian Civil War. During these conflicts, the populace and army demonstrated a continued lack of a national identity, except for the temporary galvanization against enemies. The experience in the Civil War and realization of growing capabilities of Western adversaries prioritized the need to protect the fledgling Soviet Russia/Union. The question of how to win in current and future conflicts through analysis of past conflicts drove military theorists to develop a method to conceptualize and prevail in future wars.

The Russo-Japanese War in 1904-1905 had a significant impact on Russian popular consciousness.⁴⁴ In the aftermath, the varied political movements, military, and cultural

organizations carefully considered the scope, cost, and reasons for failure.⁴⁵ This conflict demonstrated large scale forces fighting over a large front for extended periods of time. The Russian experience fighting along the Sha-ho River is referred to as their ‘first modern operation’ in terms of depth, frontage, duration, and numbers of men involved.⁴⁶ Japanese offensive maneuver relied upon the turning movement and exercised it to great effect throughout the land battles. The Russian employment of offensive and defensive measures was cautious and indecisive when compared to the bold, decisive Japanese plans.

The Russian command preferred to defend rather than counter attack and conduct offensive operations. Insufficient support of the main effort, slow planning, and cautious execution mitigated their numerical superiority.⁴⁷ An important lesson learned resulted from the Japanese inter-arms coordination of infantry and artillery in both offensive and defensive operations. Furthermore, with modern rifles and artillery, battlefield dispersion was affected to mitigate enemy effects and due to the fact that fewer men could cover more ground due to modern weapons.⁴⁸

Humiliation in this war fueled domestic strife and fostered many military theorists to question how it occurred. Neznamov and others built upon nineteenth century writings of Leer that focused on historical examinations of warfare, strategy, and provided the roots of the operational level of war through tactics applied throughout a theater of war.⁴⁹ Neznamov continued the analysis started by Leer, and examined the Russo-Japanese War. He discovered a failure in linking the individual objectives into operations to support the fundamental direction and strategy. Through these, the military gained a better understanding of modern warfare and the required changes to organization, command and control, planning, and maneuver.⁵⁰ Efforts by men such as Neznamov benefitted both the Imperial and Red Armies.

The challenge to reconcile understanding of modern warfare arose again in less than a decade after the conclusion of this conflict. World War I began as the Russian Army began to reconstitute and modernize itself.⁵¹ Quantitatively deficient in terms of heavy artillery, abundant in extensive bureaucracy, frequent staff reassignments, and a staunch opposition to change hampered the Russian Army from the start of this conflict. The army comprised of Russia's large peasant population resulted in an army that was incapable of mastering increasingly complicated technical systems, lacked individual initiative, and was mostly illiterate and backward.⁵² Despite these shortcomings, Russia maintained an unlimited manpower potential and began the war with a huge army.⁵³

The mobilization process weakened Russia's economy and changed the character of the army.⁵⁴ Radical elements influenced the conscripted men, mostly peasants. The home front witnessed a decline in morale from lingering social and political changes as well as enduring another costly conflict. Suffering egregious losses of around seven million men in this conflict, these forces fought with inept leadership and insufficient training, supplies, and ammunition.⁵⁵ In addition to high casualties, mass desertions plagued the imperial army and the supply system lacked the organization and infrastructure to sustain the forces.⁵⁶ In comparison to the German military, the Russian military possessed five times less artillery and three times less rifles and machine guns.⁵⁷ This conflict demonstrated the need for political power to effectively marshal mass armies and additionally mobilize their entire population to support the war effort.⁵⁸ Upon the monarchy's collapse in March of 1917, the Czarist forces quickly disintegrated and forced Lenin to sue for peace with the Germans in the fall.⁵⁹

The Russian Civil War, 1918-1921, occurred in the aftermath of the 1917 Revolution and near breakdown of significant social and political institutions. Both Red and White armies faced

difficulties in communicating, building combat power, and sustaining their forces.⁶⁰ The Civil War witnessed proportionally low troop densities spread across Russia's vast frontiers.⁶¹ The forces comprised of mobile formations to transit distances and adequately sustain themselves. With little manpower in reserve, breakthroughs often resulted in huge territory gains till the offensive halted.⁶² Once halted, the defender then attacked. The distances traversed in battle and factor of geography played a role in how military theorists conceptualized future operations for the Red Army.

Due to the scale of operations in the Civil War, cavalry gained preeminence during this conflict on both sides. This conflict was unique in that the forces relied on past military means such as cavalry and the same weapons of the barely concluded experience in World War I, but in a vastly different scale and widespread varying terrain. Limited aircraft, armored cars, and low numbers of armored trains comprised the advanced technology of this conflict. With cavalry and trains to close distances, the Civil War demonstrated mobile warfare as opposed to the static character of World War I and executed across vast distances and with fewer forces.

This conflict was complicated by foreign influence in terms of supplies and ethnic groups of various regions fighting with and against the Bolsheviks.⁶³ The Civil War resulted in the establishment of Soviet Russia; however, it provided a legacy of large-scale death and destruction that resulted from years of war, famine, and disease. Both sides fought this conflict through vicious and brutal methods that included murder, torture, and mass reprisals.⁶⁴ The extensive death and suffering yielded widespread peasant opposition to the Bolsheviks and the Kronstadt Mutiny in the final year of the Civil War; both actions caused Lenin to moderate policies and realign efforts.⁶⁵ When studied later, this conflict and the way it played out changed how theorists viewed space in military operations. First off, it was a mobile fight of contracting

and expanding fronts. Secondly, the Civil War demonstrated the need to maintain supply lines of mobile forces.

Why Soviet theorists developed operational art

Following World War I and the Civil War, the Soviets realized that the employment of mass armies required the mobilization of the entire country. This effort to provide materiel and effectively plan operations across a sweeping frontier went far beyond the scope of just inserting individual pieces of new technology. This construct changed the way the Soviets viewed and prepared for war and they realized that strategy needed to change as a result of the end of decisive battles.⁶⁶ In the late 1920s, Red Army equipment was at least a decade behind other major armies and became the beneficiary of the first Five-Year Plan. By the mid-1930s, the procurement of new equipment and expansion of the army occurred to counter the growing German threat.⁶⁷

Mechanization and motorization of military capabilities increased in the early 20th century. Reliability of these systems continued to improve and when employed, gave rise to support the rising concepts of maneuver and operational tempo.⁶⁸ Motorized infantry changed the tempo and supported the combined arms approach to employment of armor, infantry, and artillery. Rail networks assisted in the movement of men and equipment in both offensive and defensive situations.⁶⁹ Despite modern technologies gaining prominence in the military, the Soviets maintained a strong reliance on infantry and cavalry into World War II.⁷⁰

The Soviets collaborated with the Germans during the interwar years. These efforts included both materiel and training in tactics in exchange for space to experiment and also production of equipment.⁷¹ Undoubtedly beyond the equipment level, more concepts regarding doctrine and execution carried over with these efforts. This collaboration affected how the Soviet

military postured itself and planned for the upcoming conflict. Incorporating these technologies represented a significant departure from past operations in terms of complexity and coordination.⁷² Planning, execution, and sustainment of motorized infantry, mechanized armor and artillery, supported by airpower needed to be coordinated and viewed as an amalgamation of efforts at the operational level. Theorists such as Svechin appreciated the growing complexity of warfare and sought ways to assimilate it into operational planning.⁷³

The materiel or manpower question balanced affordability set against the Marxist ideology of economics. The argument of the experience in the Civil War favored morale over materiel, however throughout the interwar years the growing technological capabilities soon muted this argument and the Red Army embarked on modernization to build mechanized and motorized units.⁷⁴ In terms of technology, the Soviet military espoused the importance of the human and its relation to technology. Technology was important, however it had to serve a purpose, and if it did so it did not have to be the most advanced or next generation system.⁷⁵ As another of the many trade-offs, the focus on military capacity led to shortages and inefficiencies in building in support of the civilian populace.

The role of expansive terrain mass was the predominant contributor to the evolution of Soviet operational art. Objectives were not just a terrain feature away, nor were they simply an enemy city or staff. Geography played a significant role in how Russian/Soviets thought of themselves and how they viewed operational planning as a result of World War I and the Civil War.

The age of the single, decisive battle was over and modern warfare required the view of subsequent and complimentary operations to achieve operational and strategic success. With this line of thinking, the tactical level is minimized compared to Western military theory. These

concepts tied into the communal concept and that to succeed required hardship and inevitable casualties. Conceptually theorizing how to link the series of objectives into operations to support the end state supported the general Soviet outlook. This combined with the scientific approach, made large scale operations possible.

Russian and later Soviet critics of the Russo-Japanese War identified the significant impact of technology with regards to the scale of the battle as well as the conduct of war.⁷⁶ To harness this technology required mobilization and modernization of industry and the state.⁷⁷ In terms of military theory, this conflict identified the need to develop the middle ground between strategy and tactics was a focal point that would link the battles and war throughout the now changing character of war. Neznamov focused a series of lectures before World War I talking to the shortfalls of the Russo-Japanese War and discussed concepts of control and initiative in the conduct of modern warfare.⁷⁸ Officers in the Red Army such as Neznamov and Svechin further developed the term ‘operation’ to describe the linkage of maneuver and combat to maintain the offensive and momentum.⁷⁹ For the Red Army, the first revolution in military affairs occurred during the interwar years due to mechanization of air and ground warfare and the development of deep operational planning and execution as a means to fight and win future wars with new technologies.⁸⁰

As the Red Army matured, the Soviet doctrine during the interwar years focused on how to restore maneuver to large-scale battlefields.⁸¹ With relatively limited numbers of forces employed across broad terrain in the Civil War, it is from this conflict that the military thinkers hoped to maintain maneuver, and develop it into operational maneuver. Soviet military theorists extensively studied Allied experiences on the Western Front in World War I. The intent here was to not endure the static battlefields of World War I. New technologies such as the machine gun,

gas, airplanes, and tanks changed the character of warfare in the early twentieth century. One of the contributing factors of the static battlefield was railroads. Enemy railroads and their ability to resupply and reinforce multiple positions or rapidly establish new defensive lines mitigated the success of offensives, and usually at a high cost.⁸²

The concept of turning a breakthrough, or tactical success, into an exploitation at the operational level demonstrated a thorough understanding of the problem. Understanding that technology continued to change, the Red Army military theorists identified the key characteristics of new technologies and how to incorporate them into developing doctrine.⁸³ Triandifilov in the late 1920s also saw the operational potential of armor as this technology continued to improve. In terms of improvements, he stated a need for speed and power to provide the requisite shock and to protect motorized elements, smaller tanks, and infantry in the conduct of operational exploitation.⁸⁴ The concept of a ‘shock army’ provided a versatile, powerful force comprised of air and ground arms to overwhelm the adversary and provide sufficient forces to exploit the inevitable breakthrough.⁸⁵ With this line of thought, it is clear that the Soviet military theorists understood the need to fight as a combined arms force, but importantly not just at the tactical level.

The focus of how to transition a successful breakthrough into exploitation deep in the enemy rear set the Soviets apart from Western theorists who focused on maneuver across the depth of enemy defenses.⁸⁶ Frederick Kagan attributes this to the Russian experience on the East Front in World War I. They did not endure the terrible destruction of extensive trench warfare on the Western Front. This is not to minimize the terrible losses on the Eastern Front, just that it was different in terms of scale and expansive trench networks.⁸⁷ Lacking this, they maintained a

realistic and perhaps ashen view that significant losses would be required to conduct operational maneuver.⁸⁸

The question now focused on at what point to begin the successive operation. Tukhachevskii argued that the next operation should not begin until the enemy is destroyed, and that a pause could mitigate the advantage and give the enemy time to consolidate.⁸⁹ Isserson saw future operations as successive and linked, the ‘unbroken chain.’⁹⁰ Merging operations into a whole through unity of effort in terms of battlefield depth continued the operational art development. Isserson maintained the Soviet view that new technology alone is not decisive if it lacked the corresponding conceptualization of successive, deep operations.⁹¹ A thorough understanding of the nature of war was the crux of Isserson’s theory. To affect these operations and in conceptualization of how future wars would play out, Svechin promulgated the concepts ‘shock’ and ‘turn.’ Svechin proposed that destruction and attrition would achieve victory in future wars.⁹²

Lessons for the Twenty-First Century

Svechin left the enduring definition of operational art as being “the path to final aims is broken up into a series of operations subdivided by time and by more or less sizeable pauses, comprising differing sectors of a theater of war and differing sharply as a consequence of different aims.”⁹³ It is tempting to look at this definition and interpret it as merely the linkage between the strategic and tactical levels of war. Though this description clarified and established the operational level of war, the chosen words of ‘*series of operations subdivided by time*’ and ‘*differing sectors of a theater*’ and ‘*differing sharply*’ are what encompassed the development of operational art for the Red Army. These factors translate into force, space, and time

considerations for planning and execution and how the US military considers operational art as an evolving concept with the changing character of wars.

Glantz summarized the Soviet theorists' conclusions regarding operational art as the "Cumulative operational success achieved by successive operations to produce strategic victory."⁹⁴ The cultural, social, and military environment supported the intellectual exploration of visualizing how future wars would be fought. As these efforts generated momentum, political and social changes shaped the military infrastructure in terms of both manpower and equipment and established the basis for how Soviet planners would conduct successive, large-scale operations across a broad front. Operational art development continued during the interwar years and witnessed a resurrection and required refinement throughout execution during World War II.

A combination of unbiased experience with new technologies and thorough analysis of lessons learned fostered the new outlook of how to conduct future warfare across extensive fronts. Despite articulation of operational level planning and execution, several shortfalls remained to adequately conduct these operations. Beyond the opening offensive, fires could not be effectively employed consistently for mobile units.⁹⁵ Command and control systems needed rehearsal and execution. Though coming a long way in two decades in terms of both social and military modernization and the resulting changes in operational theory, the Soviet Army was not entirely capable of executing its designed operational art. Despite relying on a professional cadre of officers, the interwar years showed shortfalls in producing a wide-reaching professional and competent corps of leaders.⁹⁶ The contributing factor here was an army that was too large to adequately man with the required talented, volunteer officers. The purges of the late 1930s also impacted the military's capabilities and proved detrimental to Soviet capabilities in the first two years of World War II. Here the efforts of military theorists provided a safety net for others to

dust off and learn. Both after the purges and in the expansion of the Red Army in World War II, the efforts of the men provided the framework for others to plan and execute from and later improve upon.

From a historical examination of Russian and Soviet history and its militaries, there are several themes that remain constant, despite the political construct. Its military always possessed the advantage of extensive land mass. This had a direct correlation in how military theorists developed operational thought. Additionally, the military always had the advantage of nearly unlimited manpower available. A different outlook, somewhere between Western and Eastern, also affected the development of military thinking. Among the constants there are the negative factors of a weak economy and poor infrastructure, lack of national identity, difficulty homogenizing the entire populace, and technical shortfalls.

Conclusion:

Militaries are organizations that are directly affected by their societies and political institutions from which they draw manpower, receive tasking, and serve. The creation of the Red Army and its development of operational art during the interwar years continued the rich tradition of military thought. These growing concepts that resulted from lessons learned and technological improvements were directly affected by political, social, and cultural changes. Science and technology in support of modernization and as an ideological justification played a concurrent and significant role in developing military theory and doctrine of how to operationally assimilate and employ these enablers.

By no means, complete or perfect, the development of Soviet Operational Art in the 1920s and 1930s unquestionably laid the framework for successive, large scale operations in World War II and continued development into the Cold War decades. Without this, the tide

turned by the Red Army in the fall of 1942 and into 1943 and beyond might have delayed or not occurred. The creation of the Soviet Union and resulting modernization efforts of society and the military supported the creation of new ways to view warfare and frame the problem of command and control of massive forces over expansive distances. This view, not entirely Western and not entirely Eastern produced a third way to view warfare that became the Russian and Soviet way of war. The result was a new concept that ultimately enabled the Soviet Union to adequately control massed forces, fires, and maneuver them in linked operations to defeat the Germans in World War II.

APPENDIX A: Orientation

The Russian Empire and then Soviet Union was an expansive state comprised of 17,098,242 square kilometers, not including the eventual fifteen republics⁹⁷; almost twice the size of the United States.⁹⁸ Facts and statistics cannot adequately capture the expansive distance and variety of cultures that comprised this country. This area possessed limited infrastructure in terms of rail, road, and communications networks when compared with Western Europe or the United States during this time frame. Located between Europe and Asia, Russia and then the Soviet Union was a unique culture, not entirely western and not entirely eastern. This land and people were affected by migrations and conflict from east to west, and west to east. Each of these conflicts throughout its history continued to affect and change the development of Russia's culture and individual ethnic groups. With the wide-ranging terrain, this land mass was a historical buffer for Western Europe and often times not a significant contributor to European affairs due to distance affecting transportation and communication. This separation led to differing viewpoints of how Russia viewed itself, other nations, and conducted diplomacy and military operations.

The majority of the population resides in the western half, closer to Europe than Asia.⁹⁹ Despite this composition, the Soviet Union still encompassed a broad variety of cultures, ethnic groups, languages, and religions. This variety impacted how both Russia and the Soviet Union developed as nations. The Soviet regime typically was a Russian government that worked with the history it inherited and despite a predominantly Russian government, used the varying cultural heritages to its advantage.¹⁰⁰ The military and celebration of the included national identities under the communist banner is a recurring theme in the development of the Soviet Union. With this variety and geographic orientation, the Russian people frequently posed the question of going the way of the west or going out on their own. The question of Slavophilism or Westernism¹⁰¹ is present in Russian society, culture, and politics throughout the 19th and 20th centuries and struggled to determine which way to develop. Among the constants in Russian and Soviet history is a unique blend of European and Asian influences that affected identity and development.

The effort to modernize, in the footprints of Europe, began under Peter the Great in the late 17th and early 18th century.¹⁰² This modernization focused along social, political, and military institutions. Despite these efforts, many still saw Russia as lagging behind the rest of Europe and continued to do so into the 20th century. A history of significant class and wealth divides affected the development and westernization of Russia and carried over till the revolutions in the early twentieth century. Over 22 million Russians were classified as serfs, private property of landlords, who depended primarily upon agriculture to subsist and generate wealth for the land owners and aristocracy.¹⁰³ The period of the Great Reforms in the middle of the 19th century abolished serfdom in 1861, and essentially dismantled the social, economic, and later political structure of Russia. This significant departure from the past took decades to evolve and continued to manifest itself into further changes during the 20th century.

As one of the enduring legacies of serfdom into the 20th century, many Russians and later Soviets still viewed human life as an uncertain thing and as a commodity in low regard.¹⁰⁴ Despite efforts to improve and modernize social institutions, education and living conditions changed only marginally with the new regime.¹⁰⁵ Collectivization brought back the familiar hunger and low standard of living. Individual initiative under the initial policies of the 1920s was later punished. The result was a general reluctance to assume responsibility and to take things as

they come. These social conditions impacted the development and growth of social and military institutions.

Limited industrialization occurred prior to this time period. As the market developed with emancipation of the serfs, it occurred in the few large cities. The abolition of serfdom led to increased urbanization to support industrialization. Despite significant increases in production, capacity lagged far behind the major Western powers.¹⁰⁶ The time of the Great reforms also saw the need to support industrialization and market expansion, increased rail and communication networks. Russia lacked these modern enablers and identified an increased demand following the Crimean War.¹⁰⁷ From 1881-1905, Russia conducted an aggressive industrialization effort for both light industries of sugar and textiles, and heavy industries such as steel, primarily to support railroad expansion.¹⁰⁸ Railroad expansion served as a stimulus for further industrialization and ensured access to minerals and resources in the east. Additionally, the improved rail network linked the empire together and increased domestic and foreign trade. Despite these efforts, Russia still lagged behind Europe with respect to rail infrastructure. This proved to be a lesson reinforced in World War I. As the Czars affected modernization in the 19th century, with the emancipation of the serfs and creation of industry, there remained limited incentive for the ruling class to enact further radical social and economic changes.

¹ This general focus of new technology in this paper refers to airplanes, trains, tanks, and trucks. The development and incorporation of these technologies radically altered how militaries planned, executed, and supported operations. Dates of reference: Russian Empire: ~1600-1917. Soviet Russia 1917-1922. Soviet Union 1922-1990.

² FM100-5, *Operations*. 1986. 10.

³ Menning, Bruce W. *Operational Art's Origins. Historical Perspectives of the Operational Art*. (Washington D.C.: Center of Military History, United States Army, 2005) 15.

⁴ JP-5, *Joint Operation Planning*. 2011. I-5.

⁵ Brandenburger, David. *National Bolshevism: Stalinist Mass Culture and the Formation of Modern Russian National Identity, 1931-1956*. (Cambridge, MA: Harvard University Press, 2002) 10.

⁶ Brandenburger. 11.

⁷ Brandenburger. 11.

⁸ Keefe, Eugene K. *Area Handbook for the Soviet Union*. (Department of the Army Pamphlet 550-95, 1971). 267.

⁹ Adamsky, Dima. *The Culture of Military Innovation*. (Stanford, CA: Stanford University Press, 2010) 39.

¹⁰ This new line of reasoning reflects significant social and cultural changes that were applied to political, economic, and military institutions, social organizations, and education.

¹¹ Also known as *Sovok*. Keefe. 262.

¹² Adamsky. 41.

¹³ Kagan, Frederick W. & Robin Higham. *The Military History of the Soviet Union*. (New York: Palgrave, 2002) 4.

¹⁴ Kagan. 84.

¹⁵ Hoffman, David L. *Stalinist Values: The Cultural Norms of Soviet Modernity, 1917-1941*. (Ithaca, NY: Cornell University Press, 2003). 185.

¹⁶ The concept of science in Imperial and Soviet Russia's society played an extensive role in the development and attempt to catch up with the West. Beginning in 1725 with the establishment of the Imperial Academy of Sciences by Peter the Great, Russia began to develop homegrown scientists from the supervision of talent imported from Western Europe. Into the early twentieth century, scientists found their progressive ideas and empirical methods at odds with both the Czarist regime and the Orthodox Church. The 1917 Revolution halted scientific development and many well-known scientists emigrated. Keefe 348-349.

¹⁷ Fischer, George. *Science & Ideology in Soviet Society*. (New York: Atherton Press, 1967) 6,7.

¹⁸ Fischer. 7.

¹⁹ Fischer. 48.

²⁰ Soviet Russia and the Soviet Union used scientific research in support of the 5 year plans and to support industrial modernization. In World War II, it worked hand in hand with Commissariat of Defense. Keefe.350-351.

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- ²¹ Keefe. 286.
- ²² Fitzsimmons. 100.
- ²³ Fitzsimmons. 101.
- ²⁴ Keefe, 279.
- ²⁵ Rostow, W.W. *The Dynamics of Soviet Society*. (New York: W.W. Norton & Company, Inc., 1967) 36.
- ²⁶ Harrison. *The Russian Way of War: Operational Art, 1904-1940*. 4.
- ²⁷ Harrison. *The Russian Way of War*. 123.
- ²⁸ Keefe. 596.
- ²⁹ Jones, Ellen. *Red Army and Society: A Sociology of the Soviet Military*. (Boston, MA: Allen & Unwin, 1985) 36.
- ³⁰ Kagan. 55.
- ³¹ Kagan. 57.
- ³² Kagan. 59.
- ³³ Kagan. 60.
- ³⁴ Kagan. 56.
- ³⁵ Kagan. 56.
- ³⁶ Harrison. 76.
- ³⁷ Harrison. 77.
- ³⁸ Kipp. 94.
- ³⁹ Jones. 79.
- ⁴⁰ Kipp. 95.
- ⁴¹ Kagan. 55.
- ⁴² Kagan. 59.
- ⁴³ Jones, David R. *From Imperial to Red Army. Transformation in Russian and Soviet Military History*. (Proceedings of the Twelfth Military History Symposium: USAF Academy, 1986)53.
- ⁴⁴ Patrikeeff, Felix & Harold Shukman. *Railways and the Russo-Japanese War: Transporting War*. (New York: Routledge, 2007) 110.
- ⁴⁵ ‘Cultural organizations’ refers to literary and political critique of the Russian Army, czarist bureaucracy, and social structure as a whole. Patrikeeff. 111.
- ⁴⁶ 400,000 men fought 2 weeks across 90 kilometers of frontage by 20km depth. Harrison. *The Russian Way of War*. 16-17.
- ⁴⁷ Harrison. *The Russian Way of War*. 23.
- ⁴⁸ Kowner, Rotem and Yigal Sheffy. *The Impact of the Russo-Japanese War*. (New York: Routledge, 2007) 262.
- ⁴⁹ Genrikh Antonovich Leer, 1829-1904, author of *Strategy*, 1869, detailed the roots of Russian operational level of war through ‘the tactics of the theater of military activities.’ Harrison. *The Russian Way of War*. 24.
- ⁵⁰ Harrison. *The Russian Way of War*. 24.
- ⁵¹ ‘The Great Program’ of 1913 included an increase of 500,000 that included 274,000 going to new infantry units, 38,000 to cavalry units, and improvements in artillery. Implementation began shortly before the breakout of World War I. Harrison. *The Russian Way of War*. 40.
- ⁵² Harrison. *The Russian Way of War*. 40.
- ⁵³ Peacetime strength in 1914 was 1,248,155. Harrison 41.
- ⁵⁴ Thompson, John M. *Russia and the Soviet Union: An Historical Introduction from the Kievan State to the Present*. (Boulder, CO: Westview Press, 2009) 209.
- ⁵⁵ Keefe. 571.
- ⁵⁶ Thompson. 210.
- ⁵⁷ Thompson. 209.
- ⁵⁸ Hoffman, David L. *Stalinist Values: The Cultural Norms of Soviet Modernity, 1917-1941*. (Ithaca, NY: Cornell University Press, 2003) 9.
- ⁵⁹ Salisbury, Harrison E. *The Soviet Union: The Fifty Years*. (New York: Harcourt, Brace & World, Inc., 1967) X.
- ⁶⁰ Keefe, 572.
- ⁶⁰ Stone. Kagan. 20.
- ⁶¹ During the peak conflict year of 1919, the Red Army only had 382,000 men across multiple fronts from the Crimea to the Baltics. Stone. Kagan. 20.
- ⁶² Stone. Kagan. 21.
- ⁶³ Thompson. 230.
- ⁶⁴ Sone. Kagan. 31.

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- ⁶⁵ Stone. Kagan. 32.
- ⁶⁶ Kagan. 84.
- ⁶⁷ By 1935 the Red Army mustered 1.3 million men and 7,000 tanks. Aircraft production increased to ~4,000 per year. The Navy comprised of over 100 submarines. Keefe. 575.
- ⁶⁸ Rice, Condoleezza. *Soviet Strategy. Makers of Modern Strategy, from Machiavelli to the Modern Age*. (Princeton, NJ: Princeton University Press, 1986) 665.
- ⁶⁹ Harrison. *The Russian Way of War*. 107.
- ⁷⁰ Spector. 354.
- ⁷¹ Rice. 666.
- ⁷² Habeck, Mary R. *Storm of Steel: The Development of Armor Doctrine in Germany and the Soviet Union, 1919-1939*. (Ithaca, NY: Cornell University Press, 2003) 134.
- ⁷³ Svechin, Aleksandr A. *Strategy*. (Minneapolis, MN: Eastview Publications, 1991) 72.
- ⁷⁴ Habeck, 41.
- ⁷⁵ Adamsky. 45.
- ⁷⁶ Kipp, Jacob W. *Mass, Mobility, and the Origins of Soviet Operational Art, 1918-1936. Transformation in Russian and Soviet Military History*. (Proceedings of the Twelfth Military History Symposium: USAF Academy, 1986)91.
- ⁷⁷ Rice. 663.
- ⁷⁸ Svechin. 28.
- ⁷⁹ Kipp. 91.
- ⁸⁰ Adamsky, Dima. 27.
- ⁸¹ Kagan. 81.
- ⁸² Kagan. 81.
- ⁸³ Kagan. 82.
- ⁸⁴ Kagan. 83.
- ⁸⁵ Simpkin, Richard E. *Race to the Swift, Thoughts on Twenty-First Century Warfare*. London: Brassey's Defence Publishers, 1985) 38.
- ⁸⁶ Kagan. 83.
- ⁸⁷ Lincoln. 28.
- ⁸⁸ Kagan. 84.
- ⁸⁹ Kagan. 86.
- ⁹⁰ G.S. Isserson was the Chief of the Department of Operational Art at the Frunze General Staff Academy in the 1930s. Kagan. 86.
- ⁹¹ Isserson concluded "New weapons demand new forms of implementation in combat." Kagan. 87. Harrison. 108.
- ⁹² Svechin. 94,95.
- ⁹³ Svechin. 218-219.
- ⁹⁴ Glantz, David M. *Soviet Operational Art and tactics in the 1930s*. (Fort Leavenworth, KA, 1990) 5.
- ⁹⁵ Simpkin. 40.
- ⁹⁶ Reese, Roger R. *The Soviet Military Experience*. (New York: Routledge, 2000). 77.
- ⁹⁷ 22,774,900 sq km. including the Republics. Kerblay, Basile. *Modern Soviet Society*. (New York: Pantheon Books, 1983) 5.
- ⁹⁸ CIA world factbook: <https://www.cia.gov/library/publications/the-world-factbook/geos/rs.html>. Accessed 30 December 2012.
- ⁹⁹ Kerblay. 18.
- ¹⁰⁰ Fitzsimmons, Thomas, Peter Malof, & John C. Fisker. *USSR its people its society its culture*. (New Haven, CT: HRAF Press, 1960) 2.
- ¹⁰¹ Westernism: Westernization as a process by which the remainder of the planet has been forced to accept the universal cultural, economic, and political values which were worked out in the dynamic centers of Europe, values centering around rationalism—scientific thinking, the modern state and its bureaucratic modus operandi, even Western art architecture, and music.
- Terras, Victor. *Handbook of Russian Literature*. (New Haven: Yale University Press, 1985) 517.
- Slavophilism: Essentially a prolonged effort at national self-definition by Russian thinkers in opposition to the tendency (both in Russia and the European world) to substitute more general and less national forms of social identity for traditional and preindustrial ones. It was also a reaction to the assertion that the only difference between Russia and their European nations was that Russians were less far advanced along the universal highway toward civilization or, as Russians themselves early learned to say, 'more backward.'

Terras, 423.

¹⁰² Spektor, Ivar. *An Introduction to Russian History and Culture*. (New York: D. Van Nostrand Company, Inc., 1954) 74.

¹⁰³ Acton, Edward. *Russia*. (New York: Longman, Inc, 1986) 70.

¹⁰⁴ Up till World War II, it was not necessary to notify next of kin of casualties below the rank of Colonel. Keefe, Eugene K. *Area Handbook for the Soviet Union*. (Department of the Army Pamphlet 550-95, 1971). 589.

¹⁰⁵ Keefe. 589.

¹⁰⁶ Walsh, Warren Bartlett. *Russia and the Soviet Union*. (Ann Arbor, MI: The University of Michigan Press, 1958) 315.

¹⁰⁷ Acton. 73.

¹⁰⁸ Acton. 96.

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